WHAT IS CLAIMED IS:

1. A surface acoustic wave device comprising:

a piezoelectric substrate having a first surface on which comb-like electrodes, first pads connected thereto, and a first film are provided, the first film being located so as to surround the comb-like electrodes; and

a base substrate having a second surface on which second pads joined to the first pads and a second film joined to the first film are provided,

the first and second films joined by a surface activation process defining a cavity in which the comb-like electrodes and the first and second pads are hermetically sealed.

2. The surface acoustic wave device as claimed in claim 1, wherein each of the first and second films contains a metal as a major component.

3. The surface acoustic wave device as claimed in claim 1, wherein the first and second films are joined via joining surfaces that contain gold.

4. The surface acoustic wave device as claimed in claim 1, wherein the base substrate is one of a semiconductor substrate and an insulator substrate.

5. The surface acoustic wave device as claimed in claim 1, wherein the base substrate is made of silicon.

6. The surface acoustic wave device as claimed in claim 1, further comprising an electric element provided on the second surface of the base substrate.

7. The surface acoustic wave device as claimed

in claim 1, further comprising an impedance matching circuit on the second surface of the base substrate, the impedance matching circuit being coupled to at least one of the comb-like electrodes.

8. The surface acoustic wave device as claimed in claim 1, wherein the comb-like electrodes and the first pads form a transmit filter and a receive filter.

9. The surface acoustic wave device as claimed in claim 1, wherein:

the comb-like electrodes and the first pads form a transmit filter and a receive filter;

the surface acoustic wave device comprises an impedance matching circuit coupled to at least one of the transmit filter and the receive filter, and a common terminal via which an external connection with the impedance matching circuit can be made.

10. The surface acoustic wave device as claimed in claim 1, wherein the base substrate has via-wiring lines connected to the second pads, so that electric connections with the first pads can be made on a surface of the base substrate opposite to the second surface.

11. The surface acoustic wave device as claimed in claim 1, further comprising a support substrate joined to a third surface of the piezoelectric substrate opposite to the first surface,

wherein the piezoelectric substrate and the support substrate have been subjected to the surface activation process; and

the support substrate is one of a silicon substrate and a sapphire substrate.

12. The surface acoustic wave device as claimed

in claim 1, wherein the first film is provided on peripheral portions on the first surface of the piezoelectric substrate, and the second film is provided on peripheral portions on the second surface of the base substrate.

13. A method of fabricating a surface acoustic wave device comprising the steps of:

(a) forming a first film on a first surface of a piezoelectric substrate on which comb-like electrodes and first pads are formed so as to be surround by the first film;

(b) forming a second film on a second surface of a base substrate, the second film corresponding to the first film in position;

(c) subjecting a surface activation process to surfaces of the first and second films; and

(d) joining the first and second films so as to join activated surfaces thereof,

the comb-like electrodes being hermetically sealed in a cavity defined by the first and second films.

14. The method as claimed in claim 13, wherein the steps (a) and/or (b) forms the first and/or second film that contains a metal as a major component.

15. The method as claimed in claim 13, further comprising a step of forming an electric element on the second surface.

16. The method as claimed in claim 13, further comprising a step of forming via-wiring lines in the base substrate so that the second pads can be extended to a third surface of the base substrate opposite to the second surface.

17. The method as claimed in claim 13, further comprising a step of joining a support substrate to a backside of the piezoelectric substrate opposite to the first surface after an interface between the piezoelectric substrate and the support substrate is subjected to the surface activation process,

the support substrate being one of a silicon substrate and a sapphire substrate.